

REMARKS

The Examiner objected to Claim 2, because "said trim wavelength" should have been "said first trim wavelength". The above amendments to Claim 2 correct this defect.

With respect to Claim 9, the Examiner objected to "said light source" because the phrase lacks proper antecedent basis. The Examiner requires correction of this defect, and hence, the defect is equivalent to a rejection under 35 U.S.C. 112, second paragraph. This rejection is not the result of any amendment made by Applicant in response to the last office action. Hence, the finality of the current rejections is improper. The above amendments correct this defect.

With respect to Claim 10, the Examiner stated that "said first wavelength" should be replaced with "said first trim wavelength" and required correction. Once again, this is a new rejection that was not caused by any amendment made by Applicant. The above amendments correct this defect.

The Examiner rejected Claims 1-3 and 6 under 35 U.S.C. 102(b) as being anticipated by Sakamoto, *et al* (hereafter "Sakamoto") US 5,648,653. Applicant submits that Claims 1, 2, and 6, as amended above, are not anticipated by Sakamoto. Applicant traverses this rejection with respect to Claim 3. The above amendment to Claim 3, places that claim in independent form.

Regarding Claim 1, the Examiner looks to Figure 2 of Sakamoto as teaching the invention as claimed. The sensor shown in Figure 2 of Sakamoto has a set of RGB photodetectors that are covered by a blocking filter for blocking light in the infrared portion of the spectrum. That is, the filter attenuates light having wavelengths that are longer than those detected by the red sensor elements. That is, the trim filter in Sakamoto is a low pass wavelength filter. The present invention, as claimed in Claim 1, utilizes a trim filter that attenuates light in a spectral region that is between two of the characteristic wavelengths of the underlying detectors. There is no such teaching in Sakamoto. Accordingly, Applicant submits that Claims 1, 2 and 6 are patentable over Sakamoto.

With respect to Claim 3, the Examiner asserts that the trim filter of Sakamoto is an interference filter. The Examiner points to the passages at col. 4, lines 32-35, 57-62 and col. 5, lines 38-48 as supporting this assertion. Applicant must respectfully disagree. The McGraw Hill Science and Technology Encyclopedia defines an interference filter as "An optical filter in which the wavelengths that are not transmitted are removed by interference phenomena rather than by absorption or scattering". The cited passages in Sakamoto do not teach or suggest such an arrangement. Furthermore, it should be noted that Sakamoto teaches a single filter that blocks light over a wide range of wavelengths, e.g., 700 nm to greater than 1000 nm. A single interference filter cannot provide such a broad rejected band. An interference filter blocks light at a wavelength that is equal to $\frac{1}{4}$ the optical thickness of the layers and multiples of that wavelength. Hence, to provide rejection at a large number of wavelengths in a band such as that disclosed in Sakamoto would require a number of separate interference filters. However, Sakamoto teaches that the layers of the filters in the various examples taught therein are of a uniform thickness. Hence, the absorption curves shown in Sakamoto could not be generated by an interference filter. Accordingly, Applicant submits that Claim 3 is not anticipated by Sakamoto.

The Examiner rejected Claims 4, 5 and 9 under 35 U.S.C. 103(a) as being unpatentable over Sakamoto. The Examiner also appears to have rejected Claims 10 and 11 as being unpatentable over Sakamoto. Applicant submits that Claims 4 and 9, as amended above are not obvious in view of Sakamoto. Applicant traverses this rejection with respect to Claims 5.

Regarding Claims 4, and 9-11, Applicant repeats the arguments made above with respect to Claim 1. Sakamoto does not teach a "notch" filter that blocks light between two color filter band wavelengths. Furthermore, the type of filter taught in Sakamoto cannot provide such a notch filter.

Regarding Claim 5, the Examiner has not pointed to any teaching in Sakamoto that the color filters are located on the first trim filter. Furthermore, in arguing that Claim 4 is taught in Sakamoto, the Examiner identifies the substrate as containing both the photodetectors and the color filters, however, the Examiner maintains that Sakamoto teaches that the first trim filter layer is on the substrate. Hence, either the Examiner's argument with respect to Claim

4, from which Claim 5 depends, is flawed, or the color filters are not on the first trim filter layer.

The Examiner rejected Claims 7, 8 and 12 under 35 U.S.C. 103(a) as being unpatentable over Sakamoto in view of Sulzbach, *et al* (hereafter "Sulzbach") US 3,996,461. Applicant submits that these claims, as amended above, are not obvious over the cited references.

The Examiner looks to Sakamoto as teaching the limitations of Claim 1 and Claim 9 with the exception of the second trim filter. The Examiner looks to Sulzbach as providing the missing teaching. Specifically, the Examiner looks to Sulzbach as teaching an interference filter having a plurality of trim wavelengths.

First, Applicant repeats the arguments made above with respect to the missing teachings in Sulzbach or Sakamoto with respect to Claim 1 and Claim 9 as amended above. Sulzbach does not provide the missing teachings.

Second, Sulzbach teaches a filter for a sensor that has a single photodetector. The bandwidth of the light that passes through that sensor is the same as that received by the human eye. At best, this filter would provide high and low pass filters for use in the device taught in Sulzbach, provided the silicon photodetectors could provide the remaining filter characteristics. There is no teaching of a filter that has a notch filter characteristic as required by Claim 1 and 9.

With respect to Claims 8 and 12, there is no teaching of a pair of trim filters with the color filter between the trim filter layers. Furthermore, the Examiner has not argued that any such teachings exist or would be obvious in view of the cited art. Hence, there are additional grounds for allowing Claims 8 and 12.

I hereby certify that this paper is being sent by FAX to 571-273-8300.

Respectfully Submitted,



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